

a transparent plate bonded substantially the length of a light emitting surface of said optical modulation device;

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cont a projection unit that magnifies and projects the light flux modulated by said optical modulation device;

a partition that surrounds said optical modulation device via an air layer and thereby separates said optical modulation device from said light source and said projection unit;

a power supply unit;

an interface circuit;

a control circuit that controls the optical modulation device; and

an outer casing that accommodates the light source, the optical modulation device, the partition, the power supply unit, the interface circuit, and the control circuit.

REMARKS

Claims 1-19 are pending. By this Amendment, claims 1, 4, 18 and 19 are amended. Reconsideration based on the above amendments and following remarks is respectfully requested.

I. THE CLAIMS DEFINE PATENTABLE SUBJECT MATTER

The Office Action rejects of claims 1, 2, 4 and 6-9 under 35 U.S.C. §102(b) as unpatentable over U.S. Patent No. 5,508,834 to Yamada et al. (hereinafter "Yamada"); claim 5 under 35 U.S.C. §103(a) as unpatentable over Yamada in view of U.S. Patent No. 5,865,521 to Hashizume et al. (hereinafter "Hashizume"); claims 11-13 under 35 U.S.C. §103(a) as unpatentable over Yamada in view of U.S. Patent No. 5,868,485 to Fujimori et al. (hereinafter "Fujimori 485"). The Office Action further rejects claims 3 and 10 under 35 U.S.C. §103(a) as unpatentable over Yamada in view of U.S. Patent No. 3,910,682 to Arai et al. (hereinafter "Arai"); rejects claims 14-16 and 19 under 35 U.S.C. §103(a) as unpatentable

over U.S. Patent No. 6,007,205 to Fujimori (hereinafter "Fujimori 205") in view of Yamada; rejects claim 17 under 35 U.S.C. §103(a) as unpatentable over Fujimori in view of Yamada and further in view of Arai; and rejects claim 18 under 35 U.S.C. §103(a) as unpatentable over Yamada in view of Fujimori 205. These rejections are respectfully traversed.

Yamada does not disclose, teach or suggest an optical modulation apparatus comprising, inter alia, an optical modulation device and a transparent plate, the transparent plate being bonded substantially the length of the at least one surface of the optical modulation device, as recited in claim 1. Further, Yamada does not disclose, teach or suggest a projector comprising, inter alia, an optical modulation device and a transparent plate bonded substantially the length of a light emitting surface of said optical modulation device, as recited in claims 4, 18 and 19.

Instead, Yamada, as shown in Figures 5, 6 and 8, and described at col. 3, line 56 to col. 4, line 39, and col. 5, lines 52-66, discloses transparent cover members/plates 6, 7 attached only to portions (e.g., top and bottom) of a liquid crystal cell 1. Further, because of this arrangement, in Yamada, an air gap is created between the plates 6, 7 and the liquid crystal cell 1. The air gap acts as a heat insulating layer. Thus, the device in Yamada does not provide the advantage of reducing the heat generated in the optical modulation device and of helping to reduce the deterioration of the optical properties of the optical modulation device.

Further, regarding claim 14, Fujimori 205, singularly or in combination with Yamada, does not teach or suggest a partition having a transparent plate fitted in a light incident window corresponding to a light incident surface of at least one optical modulation device, as recited in claim 14.

Instead, Fujimori 205, at col. 15, lines 19-36 and in Fig. 12, discloses a dustproof box 1500 having square openings 1501-1503 provided on the walls of the box 1500. Each of the

openings 1501-1503 is closed in an airtight state by means of polarizing plates 981-983. This is different than the claimed invention of a partition having a transparent plate fitted in a light incident window. Further, neither Fujimori 205 nor Yamada provide any motivation to modify their structure to achieve the claimed invention.

Moreover, neither Hashizume nor Fujimori 485 or Arai make up for the deficiencies of the applied art discussed above.

Thus, Applicants respectfully submit that, taken separately or together, Yamada, Hashizume, Fujimori 485, Arai and Fujimori 205 do not teach or suggest the claimed subject matter as recited in the claimed invention.

As required by MPEP Section 706.02(j), to establish a prima facie case of obviousness, these basic criteria must be met:

- 1) There must be some suggestion or motivation in the references themselves or in the knowledge generally available;
- 2) Reasonable expectation of success;
- 3) The prior art reference must teach or suggest all claim limitations.

The first and third requirements have not been met by the rejections of the Office Action. Neither Yamada, Hashizume, Fujimori 485, Arai or Fujimori 205 show any motivation to modify their structure to achieve the claimed invention, and the Office Action clearly admits that there is at least a part of the claimed subject matter missing in Yamada.

For at least these reasons, it is respectfully submitted that claims 1, 4, 14, 18 and 19 are distinguishable over the applied art. Claims 2-3, 5-13 and 15-17 which depend from claims 1, 4, 14, 18 and 19, are likewise distinguishable over the applied art for at least the reasons discussed as well as for the additional features they recite. Withdrawal of the rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a) is respectfully requested.

II. CONCLUSION

For at least the reasons discussed above, it is respectfully submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-19 is respectfully requested.

Should the Examiner believe that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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APPENDIX

Changes to Claims:

Claims 1, 4, 18 and 19 are amended.

The following is a marked-up version of the amended claim(s):

1. (~~Three~~Four Times Amended) An optical modulation apparatus that modulates a light flux emitted from a light source according to image information, the optical modulation apparatus comprising:

an optical modulation device; and

a transparent plate bonded to at least one surface of the optical modulation device, the transparent plate being bonded substantially the length of the at least one surface of the optical modulation device.

4. (Amended) A projector comprising:

a light source;

an optical modulation device that modulates a light flux emitted from the light source according to image information;

a projection unit that magnifies and projects the light flux modulated by said optical modulation device; and

a transparent plate formed on a light emitting surface of said optical modulation device, the transparent plate formed substantially the length of the light emitting surface of said optical modulation device.

18. (~~Twice~~Thrice Amended) A projector comprising:

a light source;

an optical modulation device that modulates a light flux emitted from the light source according to image information;



a transparent plate bonded to a light emitting surface of said optical modulation device, the transparent plate bonded substantially the length of the light emitting surface of said optical modulation device;

a power supply unit;

an interface circuit;

a control circuit that controls the optical modulation device; and

an outer casing that accommodates the light source, the optical modulation device, the transparent plate, the power supply unit, the interface circuit, and the control circuit.

19. (Amended) A projector comprising:

a light source;

an optical modulation device that modulates a light flux emitted from the light source according to image information;

a transparent plate bonded substantially the length of a light emitting surface of said optical modulation device;

a projection unit that magnifies and projects the light flux modulated by said optical modulation device;

a partition that surrounds said optical modulation device via an air layer and thereby separates said optical modulation device from said light source and said projection unit;

a power supply unit;

an interface circuit;

a control circuit that controls the optical modulation device; and

an outer casing that accommodates the light source, the optical modulation device, the partition, the power supply unit, the interface circuit, and the control circuit.